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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/735,188

12/12/2003

Georgios Stamatas

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2589

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EXAMINER

CHENG, JACQUELINE

ART UNIT

PAPER NUMBER

3768

MAIL DATE

DELIVERY MODE

09/16/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/735,188	Applicant(s) STAMATAS ET AL.	
	Examiner JACQUELINE CHENG	Art Unit 3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/13/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 13, 2009 has been entered.

Response to Arguments

2. Applicant's arguments filed July 13, 2009 have been fully considered but they are not persuasive. The examiner respectfully disagrees that Leffell (US 4,894,547) only creates a ratio that cancels the effects of fluorescence to show pigmentation. Leffell teaches that his method can be used for detecting not only pigment in tissue, but it can be also used instead for studying chemical compounds such as amino acids (abstract) and in particular tryptophan (col. 7 table III). So when Leffell is being used for studying a chemical compound such as tryptophan or NADH it is obvious for Leffell to radiate at about a 295 nm wavelength and at a about 390-410 nm wavelength and measure the fluorescent emission at about 340 nm wavelength and at about a 440 nm wavelength as these are the wavelengths used to detect tryptophan and NADH respectively as disclosed by Trepagnier (US 2002/0016534 A1, paragraph 0057).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leffell (US 4,894,547) in view of Trepagnier (US 2002/0016534 A1). Leffell discloses a method and apparatus for inducing fluorescence in human skin for evaluating certain skin characteristics. Light in two different predetermined ultraviolet wavelength ranges are directed at sun-exposed skin such as the forehead (skin having undergone treatment). A ratio of the measured fluorescent intensity that is induced from each wavelength is then formed. This ratio is then compared to a ratio of the fluorescent intensity that is induced from two wavelengths that are directed at non-sun-exposed skin such as the buttocks (skin not exposed to the treatment). By comparing the ratios one can determine the effect of the sun has on the skin (col. 2 line 15-20, col. 2 line 53-68, col. 4 line 56-60).

5. Although Leffell does not explicitly disclose the two fluorescent emissions being about 295 nm and about 390 nm to 410 nm, Leffell does disclose that any two wavelength ranges within the ultraviolet range can be used. As these ranges fall within the ultraviolet range, it would be obvious to use 295 nm and about 390-410 nm. Furthermore it would be obvious to use about 295 nm and about 390-410 nm wavelengths as Leffell discloses measuring other chemical compounds (such as tryptophan, col. 7 table III) to evaluate skin characteristic and Trepagnier teaches that measuring tryptophan and NADH are factors in assessing changes of structural

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matrix of the skin, cells of skin, and other cellular components reflective of metabolic activity (cellular components reflective of the health of the skin) (paragraph 0057, 0058, 0116). To measure tryptophan and NADH respectively, light is directed in the about 295 nm range causing the skin to fluoresce at approximately 345 nm, and light is directed in the about 370 nm range causing the skin to fluoresce at approximately 420-520 nm (paragraph 0057), therefore if the fluorescent emissions of about 295 nm and about 390-410 nm were used it would be obvious to measure at intensities of about 340 nm and 440 nm.

6. Although the main embodiment of Leffell is drawn to comparing sun-exposed skin to non-sun exposed skin, Leffell also discloses that his invention can be used to monitor improvement in skin relating to treatment (col. 9 line 15-25). In order to monitor improvement in skin it would be obvious that one must monitor the same area in order to be able to tell how the skin improves over time. Trepagnier also teaches monitoring improvement in skin relating to treatments (paragraph 0116).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACQUELINE CHENG whose telephone number is (571)272-5596. The examiner can normally be reached on M-F 10:00-6:30.

8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JC

/Long V Le/

Supervisory Patent Examiner, Art Unit 3768